What is claimed is:

1. A device for assessing the degree of systemic perfusion in a patient, the device comprising:

a blood-flow sensor, adapted to be positioned adjacent a mucosal surface within a patient's body and measuring blood flow in adjacent tissue;

a PCO_2 sensor, adapted to be positioned adjacent the mucosal surface and measuring PCO_2 in the adjacent tissue; and

an indicating means operably connected to the sensor means, for indicating the measured blood flow and the measured PCO_2 whereby the degree of systemic perfusion of the patient may be deduced.

2. The device of claim 1, wherein the mucosal surface is in the gastrointestinal tract.

3. The device of claim 2, wherein the mucosal surface is in the esophagus.

4. The device of claim 2, wherein the mucosal surface is in the stomach.

5. The device of claim 2, wherein the mucosal surface is in the jejunum.

6. The device of claim 2, wherein the mucosal surface is in the colon.

7. The device of claim 2, wherein the mucosal surface is in the rectum.

8. The device of claim 1, wherein the mucosal surface is in the upper respiratory/digestive tract.

9. The device of claim 8, wherein the mucosal surface is in the nasal passages.

10. The device of claim 9, wherein the mucosal surface is in the vestibule of the nasal cavity.

11. The device of claim 9, wherein the mucosal surface is in the nasal cavity.

12. The device of claim 9, wherein the mucosal surface is in the middle nasal conchae.

13. The device of claim 9, wherein the mucosal surface is in the inferior nasal conchae.

14. The device of claim 9, wherein the mucosal surface is in the choana.

15. The device of claim 9, wherein mucosal surface is in the pharyngeal opening of the auditory tube.

16. The device of claim 8, wherein the mucosal surface is in the oral cavity.

17. The device of claim 8, wherein the mucosal surface is in the pharynx.

18. The device of claim 8, wherein the mucosal surface is in the oropharyngeal passage.

19. The device of claim 1, wherein the mucosal surface is accessible by a mouth and connects with the gastrointestinal tract.

20. The device of claim 1, wherein the mucosal surface is accessible by a nose and connects with the upper respiratory/digestive tract.

21. The device of claim 15, wherein the mucosal surface is a sublingual surface.

22. The device of claim 1, wherein the device further comprises a positioning means for locating or maintaining the blood flow sensor at a position in the upper respiratory/digestive tract.

23. The device of claim 22, wherein the positioning means is a holder adapted to fit within the oral-nasal cavity of the patient and maintain the blood flow sensor in place adjacent the mucosal surface.

24. The device of claim 23, wherein the positioning means is a holder adapted to fit within the mouth of the patient and hold the blood flow sensor in place adjacent the mucosal surface.

25. The device of claim 23, wherein the holder is adapted to position the blood flow sensor adjacent a sublingual mucosal surface.

26. The device of claim 23, wherein the holder is constructed to fit between the inside of a lip and gum of the patient.

27. The device of claim 23, wherein the positioning means is a holder adapted to fit within the vestibule of the nasal cavity of the patient and hold the sensor in place adjacent the mucosal surface.

28. The device of claim 1, wherein the blood-flow sensor is a laser-Doppler blood-flow sensor.

29. The device of claim 1, wherein the blood-flow sensor is an ultrasound-Doppler blood-flow sensor.

30. The device of claim 1, further comprising a pH sensor.

31. The device of claim 1, further including a means for determining the rate of change of blood flow.

32. The device of claim 31 wherein the determining means comprises a circuit for generating a signal representing rate-of-change of blood flow.

33. A device for assessing the degree of systemic perfusion in a patient, the device comprising:

a blood-flow sensor, adapted to be positioned adjacent a mucosal surface within a patient's body and measuring blood flow in adjacent tissue;

an indicating means operably connected to the sensor means, for indicating the measured blood flow whereby the degree of systemic perfusion of the patient may be deduced; and

a sensor holder with an inner portion and an outer portion, said inner portion shaped to fit in the mouth of a patient under the patient's tongue, said holder forming at least one holder passage extending from said outer portion to said inner portion, wherein the sensor is located within the holder passage.

34. The device of claim 33, wherein the sensor holder has an upper surface that supports the tongue of the patient.

35. The device of claim 33, wherein the outer portion has a slot for receiving the patient's frenulum, and the holder passage has an inner end lying on one side of said slot.

36. The device of claim 33, wherein at least a portion of the holder is comprised of an elastomeric material.

37. A device for assessing the degree of systemic perfusion in a patient, the device comprising:

a blood-flow sensor, adapted to be positioned adjacent a mucosal surface within a patient's body and measuring blood flow in adjacent tissue;

a pH sensor, adapted to be positioned adjacent the mucosal surface and measuring pH in the adjacent tissue; and

an indicating means operably connected to the sensor means, for indicating the measured blood flow and the measured pH whereby the degree of systemic perfusion of the patient may be deduced.

38. A device for assessing the degree of systemic perfusion in a patient, the device comprising:

a blood-flow sensor, adapted to be positioned adjacent a mucosal surface accessible by a mouth and connecting with an upper respiratory/digestive tract in a patient's body and measuring blood flow in adjacent tissue;

an indicating means operably connected to the sensor means, for indicating the measured blood flow whereby the degree of systemic perfusion of the patient may be deduced; and

a sensor holder adapted to hold the blood-flow sensor adjacent the upper respiratory/digestive tract mucosal surface.

39. A method for assessing the degree of systemic perfusion in a patient comprising:

measuring the surface perfusion pressure in the patient by utilizing a surface perfusion pressure monitor;

measuring blood pressure in the patient;

calculating the SPP index;

deducing the degree of systemic perfusion of the patient.

40. The method of claim 39 including taking an optical plethysmography measurement in a patient by utilizing a photoplethysmograph; measuring blood pressure in the patient; and calculating an optical plethysmography index.

41. The method of claim 40 including taking measurements selected from the group consisting of pH, sublingual PCO_2, and Sa O_2.

42. The method of claim 39 including measuring the blood-flow of a patient by utilizing a blood-flow sensor, adapted to be positioned adjacent a mucosal surface accessible by a mouth and connecting with an upper respirator/digestive tract in a patient.

43. A method for assessing the degree of systemic perfusion in a patient comprising:

taking an optical plethysmography measurement in a patient by utilizing a photoplethysmograph;

measuring blood pressure in a patient;

calculating the optical plethysmography index;

deducing the degree of systemic perfusion of the patient.

44. The method of claim 43 including measuring the surface perfusion pressure in a patient by utilizing a surface perfusion pressure monitor; measuring blood pressure in the patient; and calculating a SPP index.

45. The method of claim 44 including taking measurements selected from the group consisting of pH, sublingual PCO_2, and Sa O_2.

46. The method of claim 44 including measuring the blood-flow of a patient by utilizing a blood-flow sensor, adapted to be positioned adjacent a mucosal surface accessible by a mouth and connecting with an upper respirator/digestive tract in a patient.